

AMSAT News Service Weekly Bulletins

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SB SAT @ AMSAT \$ANS-128.01
STS-55 SAREX MISSION CONCLUDED

HR AMSAT NEWS SERVICE BULLETIN 128.01 FROM AMSAT HQ
SILVER SPRING, MD MAY 8, 1993
TO ALL RADIO AMATEURS BT
BID: \$ANS-128.01

STS-55 Shuttle Amater Radio Experiment (SAREX) Mission Concluded

After 10 days in space, over 160 orbits, and 4.1 million miles of space travel, the Space Shuttle Columbia successfully completed its SAREX mission this week with a landing at Edwards Air Force Base, CA. With over 300 packet contacts and numerous school contacts, the SAREX payload on this mission was kept very busy at times. One of the major highlights of this mission from a SAREX standpoint was the testing of the shuttle bay-mounted 1/4 wave vertical antenna on Orbits #61 and #62. From the ground station signal reports, it was observed that the signals appeared to be 10-12 dB stronger compared with the shuttle window-mounted antenna. This information is being compiled by the SAREX Working Group and is being forwarded to NASA officials. It is hoped that the results of this experiment will provide an incentive to NASA to have an outside shuttle bay-mounted antenna to be included on all SAREX missions. Although the bay-mounted antenna was not expected to be used after its initial test, it did unexpectedly find further use late in the STS-55 mission when a N-connector was pulled loose from the window-mounted antenna. Astronauts quickly obtained permission to reconnect back to the 1/4 wave vertical antenna in the shuttle bay. Again signal coming received by SAREX officials reported that packet signals were "booming" into packet ground stations. The SAREX payload was finally stowed away on 5-MAY-93 around 20:50 UTC after working flawlessly during the 10 day STS-55 mission.

Because of electrical power conservation measures taken during this mission, the SAREX computer was turned off and thus was not recording any telemetry during different portions of this mission. However, the SAREX packet station was kept operational. The SAREX Working Group would very much like to examine this telemetry. If you copied the SAREX telemetry during this mission, the SAREX Working Group would like to receive a floppy disk from you of this telemetry. Please send your STS-55 SAREX telemetry to:

STS-55 Packet Logs
Frank Bauer (KA3HD0)
1804 Hopefield Road
Silver Spring, MD
20905

Please send a IBM PC compatible 3.5" floppy with the SAREX telemetry stored in an ASCII formatted file. For those who made a 2-way contact or heard the SAREX payload, you can receive a QSL card or a SWL card by sending your either card to the following address:

IBM Amateur Radio Club/1993
P.O. Box 1328
Boca Raton, FL
33429-1328

Please include a large self-addressed-stamped-envelope (SASE), 4" x 9.5" and sufficient postage or IRCs with your QSL card. Please indicate on the

your if you made a 2-way contact or only heard STS-55 with a "STS-55 2-WAY" or "STS-55 SWL" on the outside of your envelope.

In final note from the SAREX Work Group. The Group is acutely aware that during this mission the astronauts were unable to make as many general 2M FM voice QSOs as they would have wanted. A complete rundown of General QSO (Voice and Packet) operations on the past two SAREX Flights (STS-56 and STS-55) will be provided in next weeks ANS bulletin. In particular, Frank Bauer (KA3HDO), AMSAT's V.P. for Manned Space Programs will address concerns raised by several radio amateurs regarding the apparent lack of general QSO operations on these flights. Please stay tuned.

[The ANS would like to thank Frank Bauer (KA3HDO) for the information which went into this bulletin item.]

/EX
SB SAT @ AMSAT \$ANS-128.02
PHAS-3D MODE B CLARIFICATION

HR AMSAT NEWS SERVICE BULLETIN 128.02 FROM AMSAT HQ
SILVER SPRING, MD MAY 8, 1993
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Joint Statement From AMSAT-DL & AMSAT-NA About Phase-3D Mode B Transponder

The following is a joint statement from AMSAT-DL President Karl Meinzer (DJ4ZC) and AMSAT-NA President Bill Tynan (W3X0) regarding Phase-3D:

"A translated version of Peter Guelzow's (DB20S) report of a Phase-3D satellite transponder meeting held near Munich on 17-18 April, 1993 has been recently circulating via the various AMSAT media. Unfortunately, as a direct result of the tedious process of translating Peter's notes from German to English, readers of the English text might also construe that transmitter and receiver compliments for Phase-3D are now final. We want to again emphasize this is not the case. The Munich meeting resulted in commitments from several individuals for a minimum viable baseline suite of equipment for the Phase-3D satellite. At this time, the transponder listing has NOT been finalized. Locations for additional transmitter and receiver modules, including a place for a 2M downlink transmitter, still remain both in the spacecraft structure as well as in the IF matrix.

"On the other hand, we are becoming increasingly concerned that precious little time remains for construction and delivery of any additional electronic components. The process of integrating our flight model spacecraft must commence, without fail, in July '94. This means the absolute latest time that delivery of qualified electronic components can occur is 1-DEC-94. That's about 600 days from now.

"While we are committed to keeping our options open for various additional transmitter and receiver combinations, we also cannot afford to put the entire project's schedule in jeopardy by waiting indefinitely for qualified builders of additional equipment to step forward. Put another way, the details of the various transmitter and receiver compliments will have to be finalized in the very near future.

"The volunteer efforts of each member of the Phase-3D team are focused on building the best satellite that we can with the resources we have available. We are still confident that once built and launched, Phase-3D will truly be the satellite for ALL amateurs. We remain firmly committed to achieving that goal."

[The AMSAT News Service (ANS) would like to thank Karl Miezner (DJ4ZC) of AMSAT-DL and Bill Tynan (W3X0) from AMSAT-NA for this bulletin item.]

/EX
SB SAT @ AMSAT \$ANS-128.03
AMSAT OPS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 128.03 FROM AMSAT HQ
SILVER SPRING, MD MAY 8, 1993
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AMSAT Operations Net Schedule

AMSAT Operations Nets are planned for the following times. Mode B Nets are conducted on A0-13 on a downlink frequency of 145.950 MHz and Mode J/L on a downlink of 435.970 MHz.

Date	UTC	Mode	Phs	NCS	Alt NCS
15-May-93	2030	B	148	WJ9F	VE2LVC
23-May-93	0030	B	156	VE2LVC	W9ODI
30-May-93	0000	B	62	N7NQM	W5IU

Any stations with information on current events would be most welcome. Also, those interested in discussing technical issues or who have questions about any particular aspect of OSCAR statellite operations are encouraged to join the OPS Nets. In the unlikely event that either the Net Control Station (NCS) or the alternate do not call on frequency, any participant is invited to act as the NCS.

Slow Scan Television on A0-13

SSTV sessions will be held on Saturdays and Sundays UTC:

Mode J	Downlink 435.980 MHz
Mode B after J	Downlink 145.960 MHz

OPS NETS will take priority, look for SSTV activity immediately after the net. SSTVer's are invited to join the Net to make schedules at other times if desired.

/EX
SB SAT @ AMSAT \$ANS-128.04
W6SP SERIOUSLY ILL

HR AMSAT NEWS SERVICE BULLETIN 128.04 FROM AMSAT HQ
SILVER SPRING, MD MAY 8, 1993
TO ALL RADIO AMATEURS BT
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Former AMSAT-NA Chairman-Of-The-Board Seriously Ill

Former AMSAT Chairman of the Board, John W. Browning (W6SP) is seriously ill at his California residence. Words of greetings and well-wishes are certainly in order to buoy up this stalwart who gave so much of himself to our hobby.

Many AMSAT members will recall John's steady leadership guiding AMSAT-NA into the Phase-3 era in the Eighties whilst trying (mostly successfully) to coax an unruly herd of prima donna techies (and would-be techies) in the same general direction. Many will also remember his always interesting column, "W6 Space Philosopher" in AMSAT's magazine, "Orbit".

Shot down twice in WWII, a Korean war fighter pilot, and a veteran of more than thirty years in the Air Force, he came to be known as "Colonel Electric" for his many space satellite program achievements including the MILSTAR which he virtually invented. He earned the Distinguished Service Medal upon retirement, an honor usually reserved for senior general officers.

John brought his brand of truly inspired leadership and clear vision to AMSAT at an important transition period where AMSAT-NA became one of a family of significant AMSAT organizations with a need to share program decisions on an international scale. He understood the "new AMSAT realities" long before many did since he had experienced similar scenarios in his work with NATO satellite managers.

Now W6SP is "down for maintenance" and his spirits could certainly benefit from hearing from his many friends in the Amateur Radio community who have benefitted through his contributions and simply through knowing him.

QSLs or letters may be addressed to John at:

John W. Browning (W6SP)
6202 Lochvale Drive
Rancho Palos Verdes, CA, 90274, USA

Or, WA2LQQ would be pleased to relay your greeting messages sent to WA2LQQ over U0-22, K0-23 or via the INTERNET: rip@pandora.sf.ca.us

[The AMSAT News Service (ANS) would like to thank Vern Riportella (WA2LQQ) for this bulletin item.]

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SB SAT @ AMSAT \$ANS-128.05
WEEKLY OSCAR STATUS REPORTS

HR AMSAT NEWS SERVICE BULLETIN 128.05 FROM AMSAT HQ
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Weekly OSCAR Status Reports: 08-MAY-93

A0-10: AMSAT-OSCAR-10 is still operational in Mode-B. The telemetry beacon no longer exists. However, despite good signals from the Mode-B transponder, there are very few stations using the transponder. [WD4AHZ]

A0-13: ATTITUDE CHANGE

L QST *** A0-13 TRANSPONDER SCHEDULE *** 1993 May 10 - May 31

Mode-B : MA 0 to MA 130 ! Omnis MA 250 - MA 60

Mode-BS : MA 130 to MA 180 !<- S transponder; B trsp. is ON

Mode-S : MA 180 to MA 190 !<- S transponder; B trsp. is OFF

Mode-LS : MA 190 to MA 195 !<- S beacon + L transponder

Mode-JL : MA 195 to MA 210 ! Bon/Blat 210/0

Mode-B : MA 210 to MA 256 ! Move to attitude 120/0, May 31

Please don't uplink to B, MA 180-190. Interferes with Mode S.

Magnetorquing from attitude 180/0 to 210/0 will commence on 08-MAY-93 [Sat]

20:09 UTC, ORBIT 3752 and will continue for 6 perigees. The new schedule will be uploaded during Mode-L on orbit 3756, so it (only) will contain two Mode J/L/S sessions: MA 130-150 and 190-210. Mode S will be ON for nearly 3 hours, MA 130 to MA 195. New Mode-S stations appear daily. During MA 130-180 you will have to endure the coupling from Mode-B users operating at 145.880 - 145.920 MHz. Either work between them, use as test signals or go X-band. MA 180-190 is Mode-S transponder exclusive (plus Mode-B beacon). MA 190-195 is Mode S beacon (plus Mode-L transponder).

[G3RUH/VK5AGR/DB20S]

A0-21: The Dual-Hop (DoHop) experiments are planned from A0-21 through the RS-10 bird on 16-MAY-93. Stations wishing to participate should uplink on CW or Lower Side Band (LSB) on A0-21 between 435.100 and 435.110 MHz and call "CQ DoHop de" your call sign. If you are not taking part in the DoHop experiments, you are asked to monitor the RS-10 signals on Mode-A. Signal reports will be appreciated. In your signal reports, please note the time in UTC, frequency, and the location of the station heard. Please send your reports to W2RS @ WA2SNA.#NJ.USA.NA or to G0NKA @ GB7DTX.GBR.EU. [G0NKA]

F0-20: The F0-20 Ground Control Station, JJ1ZUT, announced that F0-20's operational schedule during the month of May will be as follows:

Analog Mode Operation(in UTC):
May 12 11:52 <---> May 13 10:20
May 19 10:20 <---> May 20 10:40
May 26 10:50 <---> May 27 11:08

[JJ1WTK/3]

A0-16: Operating normally and has a number of interesting education files regarding the W0-18 spectrometer experiment. [WH6I]

L0-19: L0-19 is operating normally. The CW beacon is on again. You can copy the CW beacon on a downlink frequency of 437.125 MHz and it is quite strong. The CW beacon is in operation on Wednesdays only. The beacon output power is near 800 mW and it transmits eight telemetry channels and then its identification. The other PSK transmitter is on a downlink frequency of 437.150 MHz and is used for BBS operations. This week new software has arrived so our software and control team is studying the best way to start to load it in order to improve the operation of L0-19. If you want like to receive a QSL card from AMSAT-Argentina, please send your telemetry reports to our address: AMSAT ARGENTINA, P.O. Box 9 Suc. 1, 1401-CAPITAL FEDERAL. [WH6I & LW2DTZ]

U0-22: Operating normally. [WH6I]

K0-23: The BBS has been down for about 48 hours. No digital data output. [WH6I]

The AMSAT NEWS Service (ANS) is looking for volunteers to contribute weekly OSCAR status reports. If you have a favorite OSCAR which you work on a regular basis and would like to contribute to this bulletin, please send your observations to WD0HHU at his CompuServe address of 70524,2272, on INTERNET at wd0hhu@amsat.org, or to his local packet BBS in the Denver, CO area, WD0HHU @ W0LJF.#NECO.CO.USA.NOAM. Also, if you find that the current set of orbital elements are not generating the correct AOS/LOS times at your QTH, PLEASE INCLUDE THAT INFORMATION AS WELL. The information you provide will be of value to all OSCAR enthusiasts.

/EX
SB SAT @ AMSAT \$ANS-128.06
ARSENE INITIAL KEPLERIAN SET

HR AMSAT NEWS SERVICE BULLETIN 128.06 FROM AMSAT HQ
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Initial Keplerian Element Set For ARSENE

According to F6BVP, the ARSENE OSCAR satellite is scheduled to lift-off from the Kourou, French Guiana spaceport on 12-MAY-1993 at 00:51:00 UTC. Based on information given by F6BVP, the following is the initial keplerian element set:

Satellite: ARSENE
Catalog number: 00001
Epoch time: 93132.05451390
Element set: 001
Inclination: 4.9999 deg
RA of node: 227.8710 deg
Eccentricity: 0.7320529
Arg of perigee: 178.0490 deg
Mean anomaly: 40.5970 deg
Mean motion: 2.25970969 rev/day
Decay rate: 0.0e-00 rev/day^2
Epoch rev: 0

This element set will be good until Orbit #6 when at that time, the ARSENE rocket motor will be fired in order to raise the perigee and to circularize the orbit. At this time there is no AMSAT Launch Information Net (ALINS) net is planned. However, please stay tuned to AMSAT HF/VHF nets for up-to-the-minute information about the status of ARSENE.

[The AMSAT News Service (ANS) would like to thank F6BVP for the information which went into this bulletin item.]

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